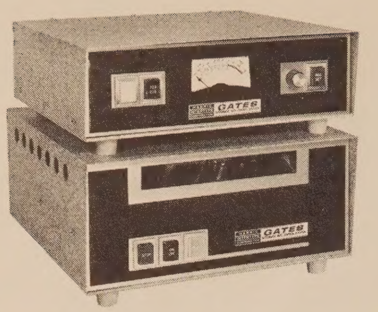
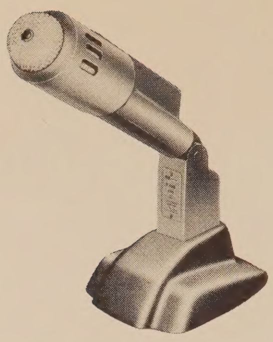
COLLEGE RADIO

The Voice Of A Great Industry

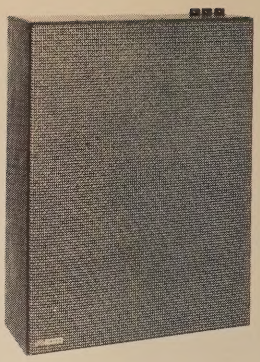
November, 1967 Vol. 5 - No. 2



CRITERION TAPE CARTRIDGE SYSTEM. All solid state. Direct capstan drive comparable to finest reel-to-reel machines. Speed accuracy of 0.2%. No tape skewing. Superb fidelity.



PROFESSIONAL MICROPHONES. Models available with specifications and quality approved by Gates to meet the particular types of service required in studio and remote broadcasting. Model G-300 cardioid shown.

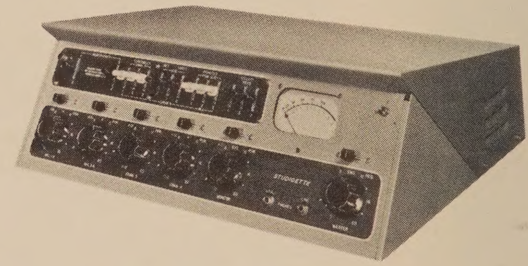


STUDIO SPEAKER/AMPLIFIER SYSTEM. Professional monitoring with solid state amplifier and loudspeakers combined in attractive thin-line walnut cabinet.

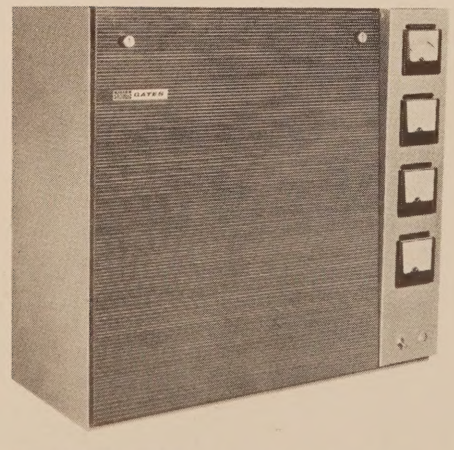
For your every need look to Gates... world leader in radio broadcast equipment

Write for complete information on these Gates products or for other specific equipment and accessories — transmitters, studio consoles and remote amplifiers, tape recorders and remote control units. Or ask for our complete 10-watt educational FM broadcast station proposal.

SINGLE-RING FM ANTENNA. Omni-directional antenna with power gain of 0.8 dB. is designed especially for educational broadcasting, as is the FM-22 two-ring antenna with a power gain of 1.6 dB.



STUDIOETTE FOUR-CHANNEL CONSOLETTE. A single-channel monophonic consolette with 13 inputs into four mixing channels. Attractive, compact. The popular choice of educational broadcasters.



FM TRANSMITTERS. Gates has consistently offered the most complete line of low-powered, wide-band FM transmitters . . . especially designed for educational broadcasting. Featuring direct crystal-controlled cascade modulation. 10-watt BFE-10C, 50-watt BFE-50C and 50-watt BFR-50C.

TRANSCRIPTION EQUIPMENT. Complete 12″ and 16″ transcription systems with famous Gates turntables that achieve new lows in rumble, wow and flutter — without sacrificing quick cue. Have unique inner-hub drive, smooth-as-silk speed change. Walnut formica cabinets.

HARRIS
INTERTYPE
CORPORATION

GATES

GATES RADIO COMPANY
QUINCY, ILLINOIS 62301, U.S.A.
A subsidiary of Harris-Intertype Corporation

College Radio

NOVEMBER, 1967

Vol. 5 — No. 2

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ON THE COVER
On the cover is pictured a typical pole arrangement, with the wires reading from the top, electrical primaries, secondaries, fire alarm wires, audio field pair, radio station coaxial cable on steel, and telephone cables.

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From the Editor . . .

No sooner get over one problem and there's another!

You probably received your copy of *College Radio* ANNUAL about a week ago. We meant to have it to you much earlier in the year, but all those listings sure take time.

So were *back on schedule* . . . . but with a new problem. And it's one we need your help on! Take a look through this issue. There just isn't enough material on your station, and stations like yours.

What's happening at your station? Send us the story and some photos.

NATIONAL NEWS

New IBS Member Services Office

IBS has a new home! Member Services and Station Relations, comprising many of the activities formerly located at the Bethlehem Operations office have been transferred to:

Intercollegiate Broadcasting
Systems, Inc.
Wesleyan Station
Middleton, Conn. 06457

Member stations are encouraged to communicate directly with this office in the future.

Mr. Robert S. Tarleton has been named director of Member Services. Donald W. Davidson, Director of Station Relations, and B. Michael Zuckerman, Master Handbook Editor. Bob is a senior at Wesleyan University, president of the Wesleyan Chapter of Kappa Alpha Society, General Manager of WESU, and a member of the IBS Board of Directors.

The staff at Middleton office can be telephoned by dialing:
203—347-5588 or 203—346-4000.

IBS Welcomes 300th Member

With the acceptance of KBYU-FM, Brigham Young University, into the system, IBS gained its three hundredth member.

Other new stations joining and their station managers are:

KWSC-FM, (Jack Rickards), Western State College, Gunnison, Colorado.

WNCE (Edward I. Schober), Newark College of Engineering, Newark, New Jersey.

WPLH Daniel Gerzog) Pratt Institute, Brooklyn, New York.

WCCS (Victor La Bella), Central Conecticut State College, New Britain, Connecticut.

WILC (John J. Clark), Illinois College, Jacksonville, Illinois.

WARP (Dr. William J. Reid), Erskine College, Due West, South Carolina.

WECW (Diane Benison), Elmira College, Elmira, New York.

KBYU (Lee Stott , Provo, Utah.

WITB (Judd Van Houten), Indiana Institute of Technology, Fort Wayne, Indiana.

WSAP (David E. Henderson), St. Andrews Presbyterian College, Laurinburg, North Carolina.

Iota Beta Sigma

The National Collegiate Broadcasting Fraternity has announced opening of new National Offices to manage the increasing activity of the honorary. Mr. Jon E. Shepardson has been named Grand Executive Secretary of Iota Beta Sigma, succeeding Mr. Thomas McCloud in that post. You can address Jon at the National Office by using the following:

Iota Beta Sigma
National Collegiate Broad-
casting Fraternity
State University College
Brockport, New York 14420

All chapters and groups interested in learning more about forming a chapter are urged to note this new address.

New Questionnaire

Are you tired of filling out questionaires? Well, IBS seems to have come up with the answer.

It would be called something like "The One-Shot" if it weren't for IBS's inclination for initialed contractions (CR, MS, CRPS, RD's etc.).

IBSSR is the new survey and data system soon to be placed in service by IBS. A single questionnaire will replace over a half dozen formerly employed by various System departments. But the new system offers advantages to IBS as well as the stations. According to Bob Jakielski, Vice President-Operations, more complete and more current data will be provided to IBS departments and several will have information they never had access to before. IBS will be able to solicit further response to this single survey (which it couldn't do with the several questionnaires in the past), and that the past problem with late questionnaire returns should be all but eliminated.

No Takers?

As of press time we have received no response to last month's inquiry about a new home for COLLEGE RADIO. The Intercollegiate Broadcasting System Board of Directors feels that it is imperative for the publication to relocate in order to develop a staff of its own capable of guiding the growth the magazine is demanding and in order to free the operations staff at Bethlehem for the administrative functions of the system.

If your school has a sincere interest in the College Radio industry and a continuing capability in publishing and journalism. we would appreciate an informal proposal in the near future. Please contact our Bethlehem, Pa. office.

New Ivy Officers

The Ivy Radio Network Board of Directors has elected Jon Clark of WPRB, Princeton Chairman of the Board. Also elected were Paul McAuliffe, President and Alan Zauer, Secretary-Treasurer.

Weekly Radio Series Planned by Intercollegiate Music Festival

"Campus Showcase '68," a weekly entertainment show will be heard on 120 campus radio stations beginning in January.

The broadcasts, provided as a public service by the Intercollegiate Jazz Festival and Trans World Airlines, will be produced by the Intercollegiate Music Festival. The Festival's staff conducts an annual competition for college bands, combos and vocal groups, with six regional winners competing for the national championship.

ABC radio and television personality Ed Jordan will host the series, which features collegiate music, celebrity interviews, fashioh, travel, sports, and employment opportunities for college graduates. Activities in major cities and happenings on college campuses will be covered.

More News on pages 24 & 25

Poles, Tunnels, and Manholes . . .

Often the college station is faced with the necessity of getting from one place to another by wire, either RF carrying coaxial cable or audio cable. In the long run it is less expensive for the station to string its own wire rather than rent from other companies such as the telephone company.

There are three major means of getting from one building to another with wire. These are: utility poles, service tunnels, and conduit systems.

Before mounting facilities on utility poles it is necessary to secure permission from the owner of the pole, either the telephone or electric company, which is noted on the pole. Generally, the telephone company allows only one other utility on their poles (besides Electric), while the electric companies allow as many as clearances will permit.

Clearances above and below other utilities vary between companies. Coaxial cable or audio wire should be at least one foot above telephone wires and must be three and one half feet below electrical secondary distribution lines and six feet below primary electric lines. If clearance cannot be maintained, it may be necessary to use arms.

Both audio and smaller sizes of coaxial cable such as RG 59 can be strung by use of "P" (drop wire) clamps, suspended from the poles by utility company approved "J" hooks.

A larger long lines system may require more cables than can be neatly supported by clamps. In this case, it will be necessary to install stranded steel guy wire between the poles. This steel is supported by throughbolts with clamps and the tension is maintained by use of strandvises which hold the steel at the ends of the runs. An older method of attaching to the steel was the placing of metal rings every three feet, forming a ring run to snake the cable through. Most modern construction is done by using a lasher to lash the cable onto the steel with a number twenty steel wire. Although it is not normally feasible for a station to own a lasher, it is possible to rent one from a local company.

Long lines man Bob Jordan after tightening a throughbolt of the radio station steel.

Other points to observe are that a ladder used on utility poles must be made of wood, and it is far easier in the long run to use climbing spikes and a belt rather than a ladder, because of the greater freedom of and more secure position afforded.

Although very few service tunnels are being constructed today, many of the older universities have an extensive network of tunnels which afford easy access to buildings on campus. Construction in tunnels is such as these can usually be run on drive rings in the masonary of the tunnel walls.

The majority of new buildings are now reached by underground conduit, which is installed at the time of construction. Pulling

over

Campus Coverage Techniques . . .

by RICHARD H. CROMPTON

From the point of view of carrier systems, the typical campus does not exist. Not only do the varieties vary between the metropolitan and the rural, the small and the large, but they also range between those whose living areas are compactly arranged versus those widely spread across the campus. Whereas the typical dormitory of the past was a three or four story structure, today we are seeing increasing construction of high rise buildings up to 15 stories, even on the large rural campus. Of course, carrier current depends upon the AC power distribution system for its "antenna." In addition to the power system varying widely between campus layouts, it is influenced by the prevailing local building construction codes. Thus, it is easy to see that no single formula can be spelled out for the application of carrier current broadcasting to all campus situations. We can, however, review some of the ground rules and some of the procedures which find more popular application.

Beat Note Possibilities

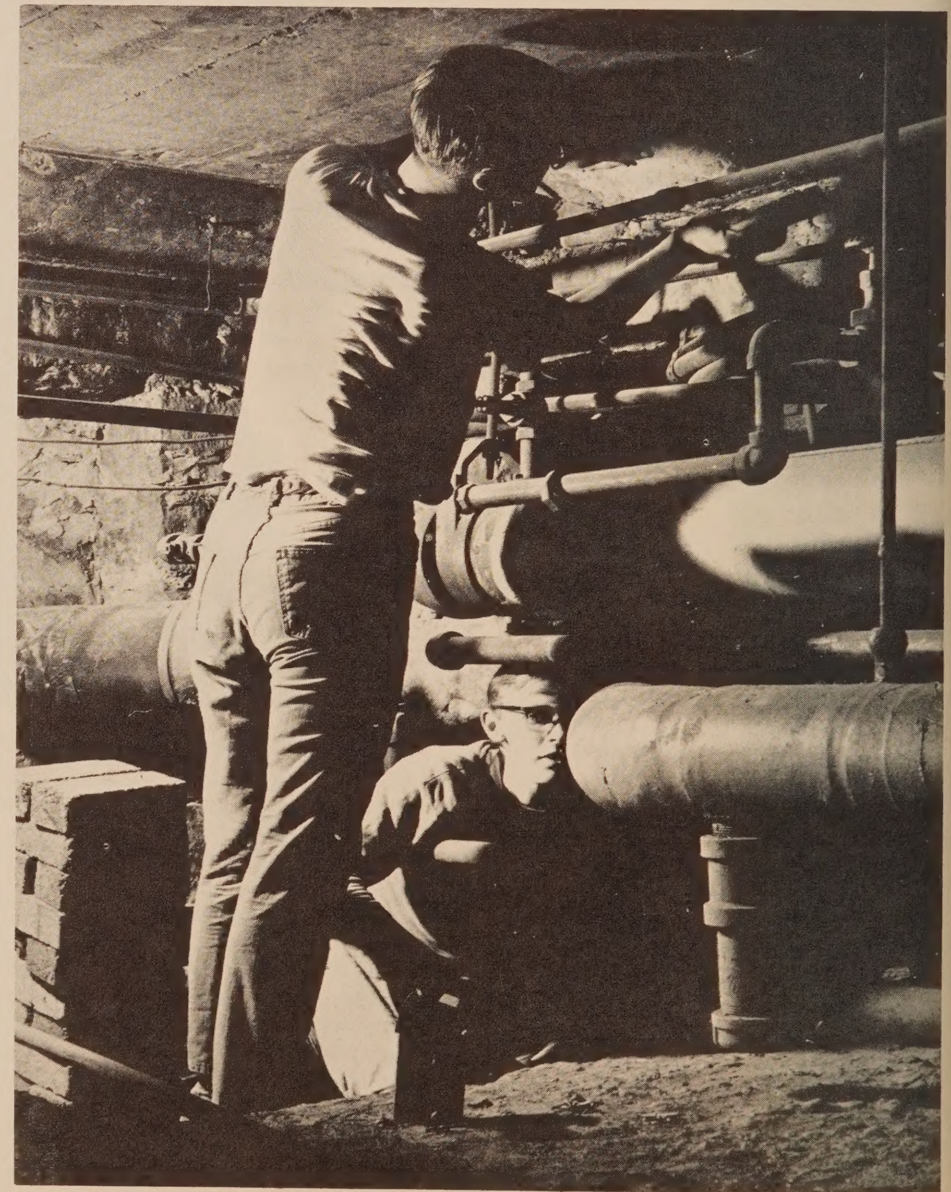
When the buildings to be covered are relatively close together, that is when the closest points come within about 100 feet of each other,

(continued on page 13)

Manholes . .

through these conduits is generally easy when a pull wire is provided. If no pull wire is installed in the conduit at the time of construction it is necessary either to "fish" the conduit, or to "blow" it. Fishing is normally done by using a spring steel snake which is pushed through the conduit and is pulled back with the wire. Often a conduit run is too long to be fished, then it is necessary to blow it. There are two possible methods of doing this, either by use of an air compressor to propel a plastic cone with string attached to it through the conduit, or to use a CO2 cartridge attached to the cone to pull the string through. After the nylon string is pulled through, a nylon rope should be pulled through with the string, and then the rope should be used to pull the cable through. If pulling is difficult it is helpful to grease both the conduit and the coax. One popular homebrew grease is a strong solution of floor cleaning soap. It has been found very effective in getting the wire through easily.

Next month we will continue this series of articles, going into the use of splitters and loading units in your long lines system.



Wire work being completed in service tunnels used for university steam heating system.

Regional Sales . . .

by ROBERT I. FREEDMAN
IBS V.P. Sales

Last year the concept of a national web of regional sales offices for college radio was born. Although there has been much discussion about this subject, the reality of the project has not yet unfolded. This article contains blueprints for the formation of a regional sales organization and hopes to stimulate interest in this project.

The one question rarely asked is "Why regional sales?" The answer is quite apparent, but by belaboring the obvious, the importance of this project becomes manifest. The greatest obstacle between the college station and financial prosperity is the inability of advertisers to seek out all college stations, to handle the incalcuable paper work in dealing with hundreds of stations, and to maintain a continuing business relationship with all of these stations. The answer: Regional Sales.

Another major problem is that from a dollars and cents viewpoint, it does not pay to deal with an individual station, since its billing, compared to commercial rates, is relatively insignificant. The answer: Regional Sales.

A major source of untapped revenue lies in regionally oriented corporations and regional representatives of national concerns. Once again, it is difficult for an individual station to gain a foothold. And once again the answer is regional sales.

Having answered the question, "Why Regional Sales?", let us turn our attention to the mechanics of setting up such an organization. The key word is organization. Regional Sales is a grass-roots concept. The impetus for this program must come from the college stations. IBS will do its share in supplying guidance and support.

As station manager or sales manager of your station, you have the opportunity to institute this program in your regional area and add to your station's sales ability. All that is needed is a little effort on your part.

To initiate a Regional Sales program, all that is required is a few telephone calls and a few letters. First, stations in your geographic area must be contacted. An effective sales region should comprise a minimum of twenty-five stations. A meeting should be arranged at a centrally located school. If a regional convention is scheduled for your area, this meeting could be arranged in conjunction with the convention.

A good basis for a geographic area would be within a state or adjoining states, or within an athletic conference. The important thing is to open up lines of communication with neighboring stations.

Topics for discussion should be, the organizational structure of the Regional Sales office, that is location, supervision of activities, methods of decision making, and sales personnel. Since advertising deals with making money, the financial aspects are of prime importance. The questions to be answered include: How much should each station contribute? What rates should be charged? What commisions should be paid salesmen. Other topics include drawing up regional sales cards, who is to deal with the advertisers, the use of affadavits of performance, and assembling sales promotion material. To help answer these questions, the IBS Sales Department is devoting increased efforts on your behalf. A letter or a phone call is all that is necessary. In addition, the IBS Board of Directors has allocated grants of twenty-five dollars to aid financing the organization of Regional Sales offices.

The formation of a Regional Sales organization is a challenge. The time to meet that challenge is now. There is an increasing awareness among large advertisers of the college broadcasting medium. The

(continued on page 21)

KUGR and The FCC

by J. THEODORE ANAGNSON
IBS V.P. Publications

A letter last summer from the Secretary of the Federal Communications Commission reaffirmed the continuing position of the FCC regarding college radio stations.

In a case involving radio station KUGR at the University of Washington, Pullman, Washington, the Secretary denied that Dr. Robert L. Hoover, owner of commercial station KPUL, had any legal grounds in seeking to terminate what Dr. Hoover alleged was an "economic threat to my livelihood by a tax-supported operation . . . "

Dr. Hoover began his protest with a letter to his Congresswoman, Representative Catherine May, in a letter last February which alleged that the station he recently bought was losing money solely because the student station at the university was charging rates which were one tenth what KPUL had to charge in order to make money. Dr. Hoover charged that imposition of a state tax on the gross sales of stations constituted double taxation when the radio station at the university also turned its profits to the State's general fund.

He said: "Now afer I'm here, I am finding out why this Radio Station is having so much financial trouble, and why the owner prior to the owner that sold out to me went broke: The school (Wash. State University) is selling advertising over their TAX SUPPORTED RADIO STATION at such ridiculously low prices that all the merchants here are using the State's Radio-Station Charges as a yardstick to measure the worth of radio advertising. I must charge ten times as much . . .

I have written an original set of letters to Gov. Evans and the President Acting of the university. I told them both that the operation of their commercial radio station with tax dollars represented double taxation. The attached letter to President Beasley of Wash. State University is a response to his reply wherein he tried to white-wash

(continued on page 22)

Technical Radio Broadcasting & Equipment Marketing Positions

Career opportunities for college graduates, either BSEE or Business major, interested in combining technical radio broadcasting interest with equipment marketing.

Positions are in headquarters sales office in dynamic Midwest community.

In addition to familiarity with broadcasting equipment, applicant should have drive, initiative, and be sales and marketing minded.

Wonderful long-range opportunity with this expanding growth-minded company.

Please send resume to:

PERSONNEL DEPARTMENT
GATES RADIO COMPANY
QUINCY, ILLINOIS

NOVEL IDEAS FOR COLLEGE RADIO . . .

Due to the large quantity of RC-5A transmitters in the field, many questions have come up about them. The following are modifications that have been made to this transmitter to increase its versatility and improve its performance.

Remote Control

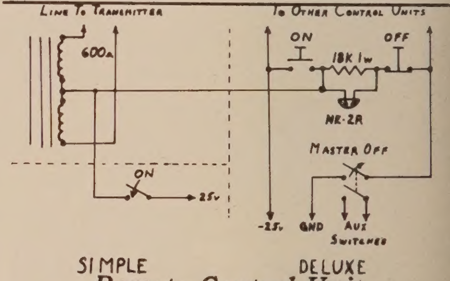
Many stations wish to control their transmitters from a remote point. This can be done simply by simplexing control down the audio line with the addition of a center-tapped line to grid transformer and a sensitive relay to the transmitter. A more complex version indicates when the B+ in the transmitter is on.

The senstive relay used in both circuits its a Potter and Blumfield LM-5 5,000 ohm relay. While the input transformer was a Thordorson T50567A, any balanced line input transformer will work. The secondary impedence is not too important as there is more than enough gain in the transmitter. During construction the relay should be adjusted for pull in at less than 20 volts.

For the simple remote control ground point "A" and delete the starred components. At the controlling end all that is needed is a 24 volt source, switch, and a center-tapped line driving transformer.

The "Deluxe" circuit requires an additional: 3 NE-2 neon lamps, 2 resistors ,a diode and a switch. The circuit operates as follows: to turn the transmitter on minus 25 volts is applied to the simplex circuit through the momentary closed switch. This flows down the simplex circuit to the transmitter, through the sensitive relay to ground via the diode. This turns on the transmitter and once the B+ voltage come up (almost instantaneously), the "on" button can be released. Then the B+ voltage flows through the 2 watt dropping resistor, the sensitive relay and into the simplex circuit. At the controlling end this flows through the parallel combination of the NE-2 neon lamp and a load resistor to ground via the normally closed off button. Pressing the "off" button breaks this circuit causing the relay to de-energize turning off the transmitter. Once the power supply has discharged (2-3 seconds), the "off" button can be released.

The two neon lamps in the transmitter in conjunction with the 2-watt resistor limit the maximum voltage and current on the simplex loop to that allowed by the telephone company. The load resistor across the neon lamp at the control point completes the circuit as sufficient current is drawn to energize the relay. The NE-2R has a 68 thousand ohm resistor in series with it to limit the current through the lamp to a safe value. By measuring the current through the "off" button one can determine the B+ voltage at the transmitter. By taking daily or weekly readings defective transmitters or weak tubes can be detected. Unplugged or transmitters without B+ will not turn on the lamp so a maintenance man can be called at once without waiting for listener's calls.



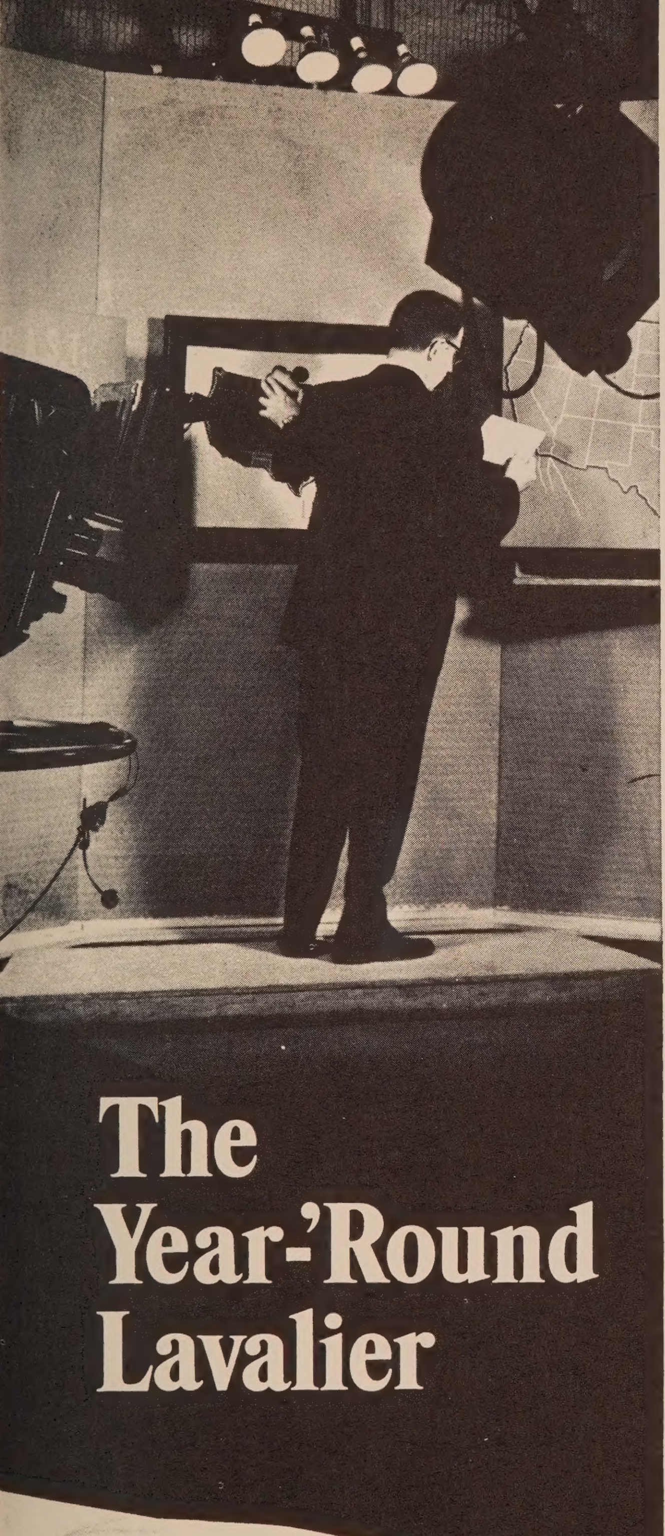
Remote Control Unit

Although this was used in an RC-5A transmitter, it can be used on any transmitter fed audio via a pair of wires from a control point. One note of caution: if equalized or long telephone company lines are used, be sure to tell them you plan to use simplex so they can connect the simplex path around equalizers and amplifiers.

Second Harmonic Reduction

In some cases where the RC-5A is tightly coupled to the line there is a high quantity of second harmonic energy leaving the transmitter. The principle used to suppress this is a Faraday shield. Placing a Faraday shield between the primary and secondary windings of

contined page 16



The Year-'Round Lavalier

Around most TV stations, E-V lavaliers are taken pretty much for granted. Just hang one around your neck, or clip it onto lapel or pocket—and start talking.

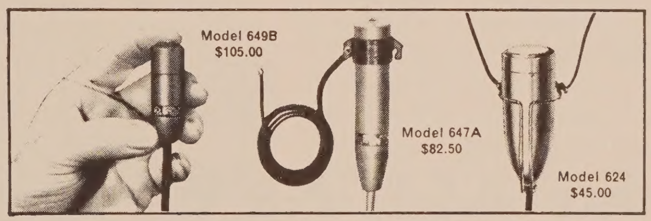
Nothing could make us happier. Because we take great pains to insure the absolute reliability of these tiny microphones. And frankly, no other type of microphone poses a bigger design problem. The lavalier gets dropped, stepped on, swung by its cord, smashed and banged—not once, but often during its life. Most of the abuse is accidental—but inevitable.

So we developed a "nesting" principle of construction that is based on tolerances so tight that the internal element acts as a solid mass, reducing damage due to shock. And we use nothing but Acoustalloy® diaphragms . . . almost indestructible despite heat, humidity, dirt, or high intensity noise or shock.

We've also spent years developing cable specifications—and methods for attaching it. We've taken into account all the tugs and twists that are the fate of any lavalier cable. That's why our strain relief is so effective. And knowing that no cable can last forever, we've made replacement easy and fast.

Of course reliability by itself is not enough. So our field testing of E-V lavaliers is also devoted to sound quality. We must satisfy major network and independent stations on every score. As a result, E-V lavaliers can be mixed in the same program with stand microphones with no change in voice quality.

In the process of developing the lavalier, we've also made it smaller. Our original model was 7″ long and 1″ in diameter. Today's Model 649B is just 2-1/4″ long, 3/4″ in diameter, and weighs a mere 31 grams!



Normal trade discounts apply to list prices shown.

Of course TV studios aren't the only places you'll find E-V lavaliers. They're used in classrooms, lecture halls, conferences, stages and business meetings. And they offer the same year-round reliability with no compromise of sound quality.

Every E-V professional lavalier is protected by our unique 2-year unconditional warranty against failure of any kind, plus the lifetime guarantee of workmanship and materials that is an integral part of every E-V microphone. Full details are waiting at your nearby Electro-Voice microphone headquarters. Or write us about your special needs. We're ready to solve the toughest sound problems—off the shelf—all year 'round!

high fidelity systems and speakers • tuners, amplifiers, receivers • public address loudspeakers • microphones • phono needles and cartridges • organs • space and defense electronics

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610 Cecil Street, Buchanan, Michigan 49107

WE ARE

OPEN
FOR
BUSINESS

our ALL NEW

MEMBER SERVICES OFFICES

ready to serve our 300 member stations

Intercollegiate Broadcasting System
Wesleyan Station
Middleton, Connecticut 06457

If you aren't one of
the lucky 300, write today
for an application form.

1967 NAB CONVO HIGHLIGHTS

This year IBS is making plans to hold its National Convvntion in Chicago on March 30, 1968. Under an agreement with the National Association of Broadcasters, delegates from the IBS convention will be admitted to the NAB Convention on Sunday, March 31, 1968. On these pages is information on equipment and film exhibits from the NAB's bulletin, HIGHLIGHTS of April 10, 1967.

The world's largest display of radio and television broadcasting equipment drew huge crowds from its formal opening on Sunday to the final curtain Wednesday afternoon.

The gigantic exhibit covered more than 50,000 square feet of space in the Conrad Hilton's four exhibit halls.

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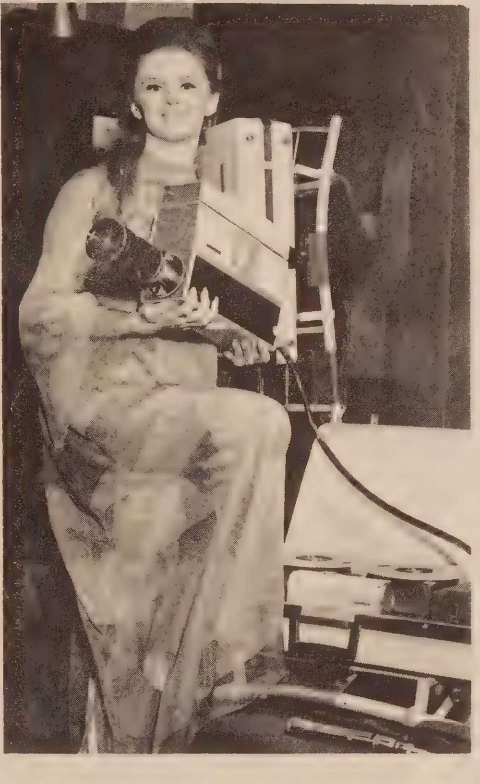
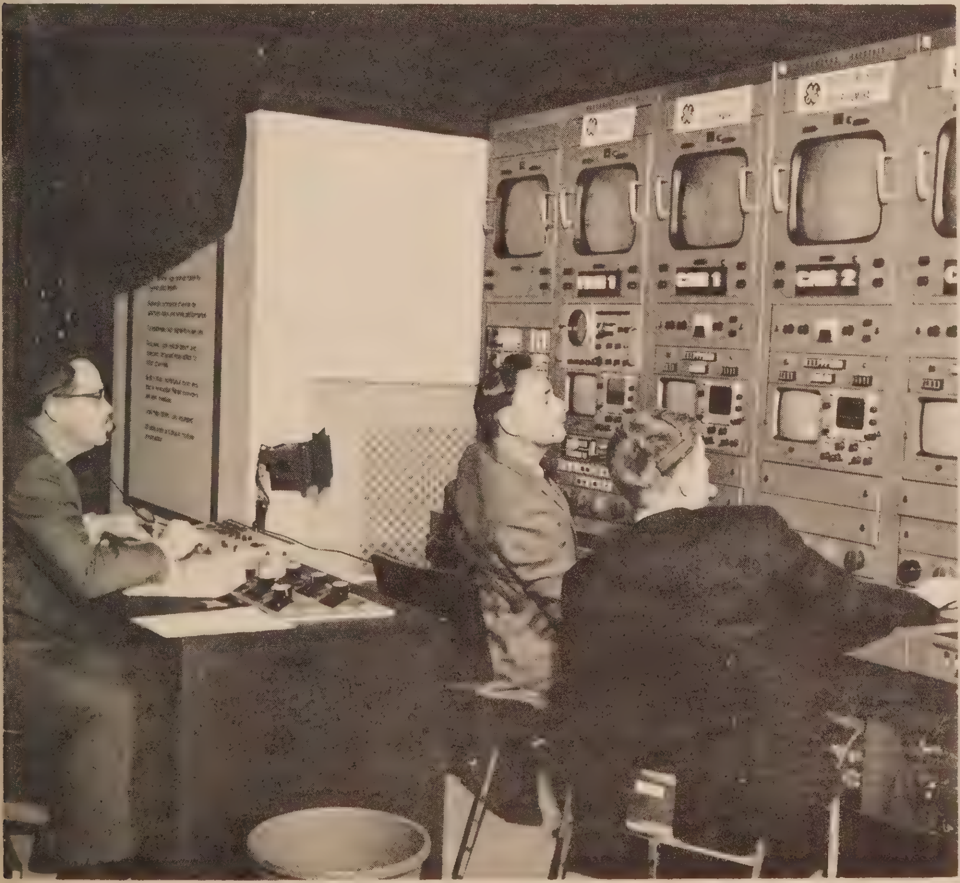


Left, Miss Darlene Camille shows the camera unit of a new portable field tape recorder adapted to color.



**Multiple choice–
every one
a right answer!**

**Bauer's line of
audio consoles**

There's a compact Bauer console that's right for any audio operation, simple or complex. Each console is self-contained and highly versatile, for speed and accuracy in cueing, monitoring, mixing and programming. Each is of typical Bauer high quality and reasonably priced.

Model 915—for the remote TV truck; 8-microphone versatility with multiple inputs for turntables, tape units, projectors.

Model 912S—for 5-channel stereo in studio production and control rooms. Handles tape prerecording, remote interviews, panel shows, commercial ETs, ID spots, etc. As on-the-air console, gives fast, precise control over 13 inputs.

Model 912—a 5-mixer model for production preprogramming in studio or on remote location; excellent primary, on-the-air unit for smaller stations.

Model 910S—8-mixer stereo console with all the inputs and controls needed by any station, AM or FM, large or small.

Model 910D—dual unit, easily handles two programs simultaneously; 8 mixing channels and more useful features than most consoles twice its size.

Let a Bauer add new dimensions to your audio capabilities: modern, high-speed control, versatility, simplicity, and convenience. Write to us for full technical information.

Bauer
ELECTRONICS CORPORATION
1601 California Ave.
Palo Alto, California 94304

A Granger Associates COMPANY

Thoughts on Local Sales . . .

DOLLARS FROM DONUTS

What's your station's annual sales income? And I mean *local* advertising!

Is this year's advertising revenue going to reach or exceed last year's, or did some of the genius of last year's sales manager fail to rub off on this year's staff?

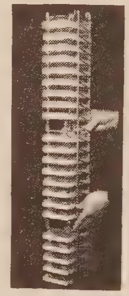
Well, nothing can replace an enthusiastic and experienced staff. That, my friend, is a lot of hogwash . . . because there are several things, *easy* things, that can and do make a big difference.

The first thing to know is *where to look*. Sales staffs use a lot of steam beating their brains out at the wrong doors.

Are you hitting the guys across town every day, and forgetting the room down the hall? Is the Class of '69 selling Blazers, or the bookstore buying used books . . . or the S.G. selling Homecoming Concert tickets? Then, of course they're advertising on the campus radio station! There are many more on-campus advertisers, some of which fall into a much higher category I'll deal with later.

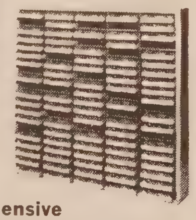
SPOTMASTER

RS-25



Tape Cartridge Racks

RM-100



. . . from industry's most comprehensive line of cartridge tape equipment.

Enjoy finger-tip convenience with RM-100 wall-mount wood racks. Store 100 cartridges in minimum space (modular construction permits table-top mounting as well); $40.00 per rack. SPOTMASTER Lazy Susan revolving cartridge wire rack holds 200 cartridges. Price $145.50. Extra rack sections available at $12.90.

Write or wire for complete details.

Spotmaster

BROADCAST ELECTRONICS, INC.
8800 Brookville Road
Silver Spring, Maryland

"Where to look" is simply hitting the most probable accounts first. And you know who's most probable as well as anyone else. Restaurants, food places with take-out-servie, Pizza shops and the like are prime targets. Have you hit the new Chicken Delight in town? Clothing shops run a close second. Gas Stations, Auto Shops and Car Washes are a natural, along with student services like Barbershops, Card Shops and Jewelers.

Often overlooked are firms dealing with only a limited segment of the student body, and yet interested in advertising. A fine example is job printers off campus, although Stationery Stores, Art and Drafting Supply shops, and newspaper accounts are on almost the same principle.

Never overlook Patronage accounts! These are people whom you can convince owe you money because of your existence and their existance. These include Beverage Companies, Food Service and Athletic Suppliers, Student Laundry Service, the Bookstore, and other campus monopolies. The funny thing is that (whether or not their heart's in the right place) they really do owe you something. Most of them will actually be glad to see you. If they're not interested, thank them for their time and excuse yourself. Someday they may clean their glasses.

While making the rounds it's important that you hit some accounts with the "Big Packages", like sports season participations. Targets here are New Car Dealerships, Accommodations accounts, Banks, Patronage advertisers and others not desiring a constant saturation schedule.

Need we point out that even though your sales department is outperforming the campus newspaper, it is still a good idea to look through its pages for new leads.

So much for the first consideration. The second concept is *how to sell!*

Let's assume your salesmen know the ropes. They know how to approach clients and not to argue with shop owners (some people simply won't buy advertising they don't see in print, etc.!) and how to dress. How to dress, by the way, is not as easy as it sounds. Many clients prefer to see their salesman dressed as dynamic collegians. On the other hand, I know of a local hotel that will toss out any salesman who doesn't call in a business suit.

A complement to manners on the street is tidyness in the office (and I mean more than having a presentable office if a client drops by). Keeping a file with the name of the account's proprietor, his secretary's name, and a list of the calls and sales made is a minimum. No advertiser likes to hear "You own this place? What's your name?" year after year! If merely the foregoing was strictly followed, every account you have would probably renew.

Some additional facets, beyond the salesman, have an impact. Does the Business Dept. get correct bills out on time. If requested, is the account billed monthly? Are affidavits mailed on time? If a client calls the station, does he get courteous and efficfcient service?

More on proper servicing of the account in a second. But first I want you to ask yourself if you know the image your station projects. Do you realize that many times your "salesman" is the owner of the shop next door? I guarantee that if you're doing the job right, you have at least a half-dozen free lance missionaries in town right now. And there's another thing that does a lot of good. Your local shoe store is running a two-day special sale on rubbers and misses the newspaper deadline. A good response will make you look very good.

Now back to proper care and feeding. The term *servicing* implies a number of things, including salesman contact after the contract is signed. Frequency of callback varies according to type of account, but no advertiser likes to feel forgotten. A policy well worth the effort is providing the advertiser with a copy of all continuity aired for him. This is done by many commercial stations and even though you're not in competition with them, you are compared with them by the advertiser.

Relevant in this area are some questions of ethics and attitudes. Two salesman's rules that cannot be overvalued are the postulates "Never knock the other guy . . . be he radio station, newspaper, or anybody else!" and "Never go off your rate card!" I've seen the local campus newspaper loose a $300 account by breaking the first one (For a copy of the client-salesman dialogue, send in a stamped, self-addressed envelope).

Lastly comes salesman attitude. If he isn't thoroughly convinced that your station can do the advertiser a load of good, that you can outperform anybody else on campus and deliver more per advertising dollar . . . then you are better off without him out there! Most good salesmen I've met will smile through anything to avoid an argument with an advertiser except a slice at the station, its programming, reach, or audience.

Always remember that you are in competition with professionals, and so you need to be a pro yourself.

I can imagine the number of letters COLLEGE RADIO is going to get from sales managers who are doing all of this, and more. They are going to brag about it, because they're plenty proud of their sales effort.

Well, we'd be real happy to hear from you hot-shots! When you've found success, why not let others in on it, and toot your own horn in the process. Thing big! Send in a whole article!

In the meantime, lets all do the obvious. Step back and take a hard look at your total sales operation. Not as an interested party with the answers and excuses, but with total honesty. List your shortcomings, and then start with the weakest links. Next month we'll talk a bit about gimmicks, presentations, and rate cards.

Campus Coverage Techs. . . .

it is necessary to use a single source of RF energy to cover the several buildings comprising the complex. This is necessary because of the possibility of beat notes being produced which are annoying to the listeners that may be in an area receiving signal from two transmitters simultaneously. These beat notes arise because of the slight inevitable difference in the freqency of the two or more crystal oscillators. While it is possible to zero beat two crystal oscillators the maintenance of this may require annoying frequency attention.

Single Transmitter, Several Buildings

The most common technique found for the coverage of a group of buildings from a single transmitter in order to avoid the possibility of this beat problem is to divide the LF power from the transmitter in accord with the number of buildings to be covered, and feed it via coaxial cables from the transmitter location to each building where it is then impedance matched and coupled into the AC power distribution system. The routing of these coaxial cables can be a serious problem on many campuses today, for the incidence of underground utility tunnels between buildings is diminishing. Those who find no other solution are often required to bury their coaxial cable in small slit trenches reaching just below the frost line and running between buildings, for it is almost always forbidden to run overhead cables. Other techniques for the coverage of multiple buildings in close proximity without the need for interconnecting coaxial cable have been proposed, and some have been installed. Their complexity is, however, always a serious problem of maintenance, especially a few years after the installation when the designer is no longer available.

(continued on 16)

No matter how good your mike or turntable or tape deck is , if your transmitter is bad, everything is bad - because of your signal.

LPB induction field transmitters are designed to operate with any type input - with good results.

Our transmitters are reliable , lightweight, and simple to use. They are compatible with many existing systems and installation requires little more than just *plugging it in*.

All our equipment is guaranteed for one year against *any* type failure or defect.

We also provide an application assistance service to ensure optimum performance of our equipment.

For additional information or assistance on technical problems contact:

LOW POWER BROADCAST EQUIPMENT CO.
248 Swedesford Rd., Malvern, Penna.

A.M. BROADCAST TRANSMITTER

Announcing the
29th NATIONAL CONVENTION
# of the
INTERCOLLEGIATE BROADCASTING SYSTEM

in conjunction with the

ANNUAL CONVENTION
of the
NATIONAL ASSOCIATION OF BROADCASTERS

March 29, 30, 31 **The Palmer House**

CHICAGO

SCHEDULE *

FRIDAY, MARCH 29, 1968		
Grand Foyer	Registration	4 p.m. - Evening
	Open Reception	6 p.m. - Evening
SATURDAY, MARCH 30, 1968		
Grand Foyer	Registration and Coffee	9 a.m. - 11 a.m.
	Five Sessions	10 a.m. - 12 noon
	Lunch - Guest Speaker	12:30 p.m. - 2:30 p.m.
	Five Sessions	2:30 p.m. - 4:30 p.m.
	General Session	4:30 p.m. - 5:30 p.m.
	Iota Beta Sigma Banquet	6:30 p.m. - 8:30 p.m.
SUNDAY, MARCH 31, 1968		
	N.A.B. Exbit Hall Open	12 noon - Evening

*There may be minor changes in this schedule at a later date.

CHECK THESE SPECIAL FEATURES

SPECIAL PACKAGE FOR TRAVEL

Charter flights from the following cities will be made if enough reservations are made.

New York	$ 61.52
San Francisco	123.62
Los Angeles	120.63

Excursion rates and reserved sections of seats will be available from the following cities:

Washington D.C.	59.38
Atlanta	63.63
Cleveland	34.65
Minneapolis	40.32
St. Louis	30.35
New Orleans	86.00
Rochester, N. Y.	53.24

Rates from other cities will be made available upon written request.

All rates quoted above are for round-trip and include all federal taxes.

Send this request to:

Convention Headquarters

I.B.S.
P.O. Box 474
Rochester, New York 14602

SPECIAL PACKAGE FOR THE PALMER HOUSE HOTEL

The following rates include three nights plus registration fee and lunch for the convention.

Four persons to a room:

Member	$ 21.50 per person
Non-member	25.50 per person

Three persons to a room:

Member	$ 24.50 per person
Non-member	28.50 per person

Two persons to a room:

Member	$ 42.50 per person
Non-member	46.50 per person

Single room:

Member	$ 47.50 per person
Non-member	51.50 per person

If you are not staying overnight the cost for registration and lunch will be as follows:

Member	$ 9.50
Non-member	13.50

If you are planning to stay less then three nights, please let us know.

Radio Station ____________ plans to send the following number of of persons __________ to the 29th NATIONAL CONVENTION OF I.B.S. in Chicago. We would like to fly from __________________. Please send us additional information on the convention and air travel.

Station Manager ____________________________________

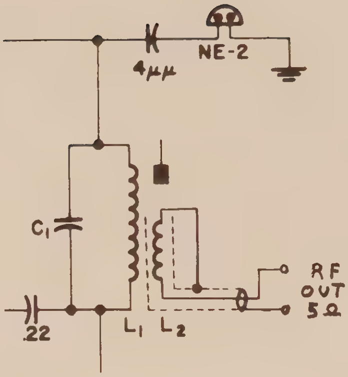
Radio Station ____________________________________

Address ____________________________________

City, State, Zip Code ____________________________________ the RF output transformer of the RC-5A is difficult due to the mechanical configuration of the coil. To do this on the RC-5A a miniature coaxial cable similar to RG-174U, but with a teflon insulated center conductor, was used.

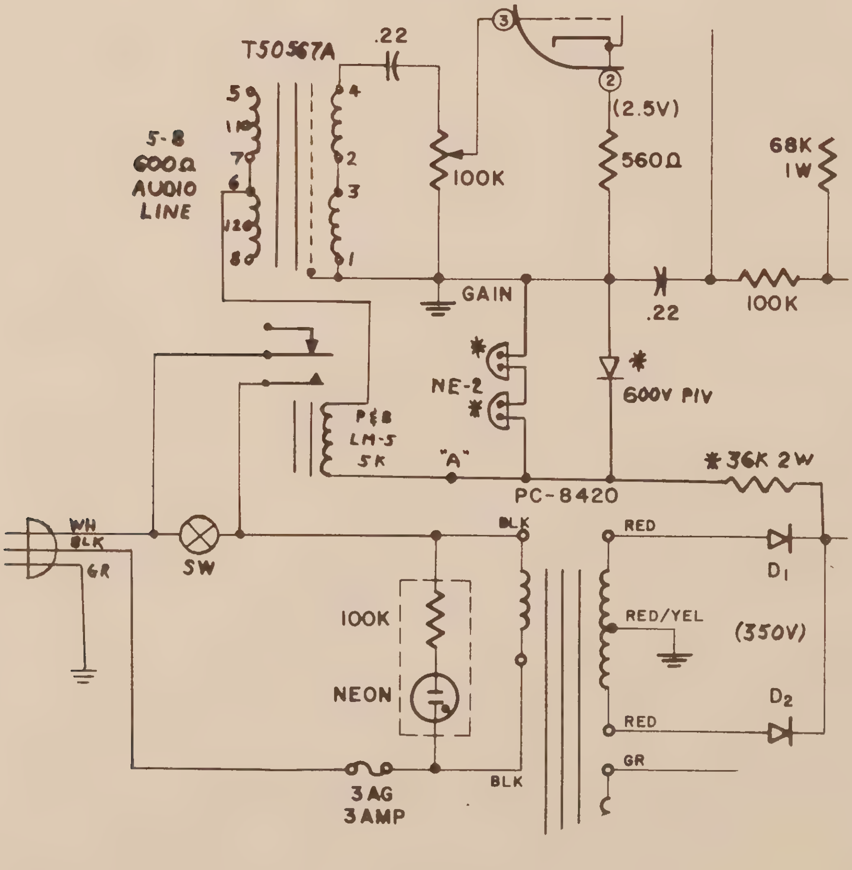
One end of the coax is connected to the output terminal. The shield should be connected to both ground and one of the output terminals. The cable is then wound around L1 three times and the center conductor is connected to the shield of the cable at the start of the first turn. The shield at the last turn is left floating. The jacket should be left on the coaxial cable to insulate the shield from L1 and to keep the adjacent turns from shorting. The teflon center conductor is required on the cable due to the heat generated in the coil.

This harmonic suppressor besides being used on the RC-5A can also be used on any other transmitter that used a parallel resonant output.



2nd Harmonic Reduction

Submissions to the novel ideas column are always welcome. Pass your pet circuits on to other stations. Send to College Radio Magazine, Bethlehem, Pennsylvania 18015.



Transmitter Modification

Satellite Transmitters in Each Building

The more fortunate campus coverage situation is that where the buildings are all rather widely spaced apart. In this case, it is most practical to use a separate transmitter in each building. These various transmitters may be fed audio input signal from the station studios either via wire lines leased from the local telephone company or over lines installed, where practical, by the campus station. Generally the transmitter is made sufficiently reliable that it may be operated continuously without the bother of remote power control techniques. Where it can be employed, this system of satellite transmitters is preferable to the centralized transmitter system simply because each building coverage system is now completely independent of all others and may be optimized without concern for the effects upon other buildings. Also, the failure of a transmitter in a single building does not cause the loss of as great a portion of the listening audience. The transmitter used in an individual building will, of course, be much smaller than that required in the centralized case. This lesser concentration of power also provides less prospective excessive radiation problems.

Coupling Into High-Rise Dorms

Coupling into high-rise dorms s as to provide good signal distribution is sometimes difficult. Perhaps this is because the use of the usual basement coupling point causes much of the RF to be wasted in motors, etc. It is obvious that in any coverage situation we would prefer to couple the RF energy into the AC power distribution system at a point which we might describe as the geometric center of the building. In the case of the high-rise dormitory, this would be at a mid-story level rather than in the basement. The difficulty in this is that it is often difficult to gain access to the three phases of the power system at one location above the basement location of the switchgear. In extreme cases, it may be necessary to consider a three-way division of the output power of a modest sized transmitter, conveying each third via coaxial cable to a different story level in the high-rise building, perhaps the 3rd, 6th and 9th story levels.

Two Other High-Rise Techniques

Two other RF coupling techniques are sometimes of advantage in these buildings. One is to couple into the three-phase power feed to the elevator converter up in the penthouse on the roof. Since this power line runs up the central core of the building, it has often proven to provide good signal distribution. Note that in this case the point of maximum RF signal is now at the top floor of the building, and the transmitter is removed from many of the motors in the building. Another useful technique is the couple into the single - phase system which supplies the exit or emergency lighting network of the building. This wiring system covers the building rather well and has the added advtnage of not having a widely changing AC load upon it.

Power Line Matching Problems

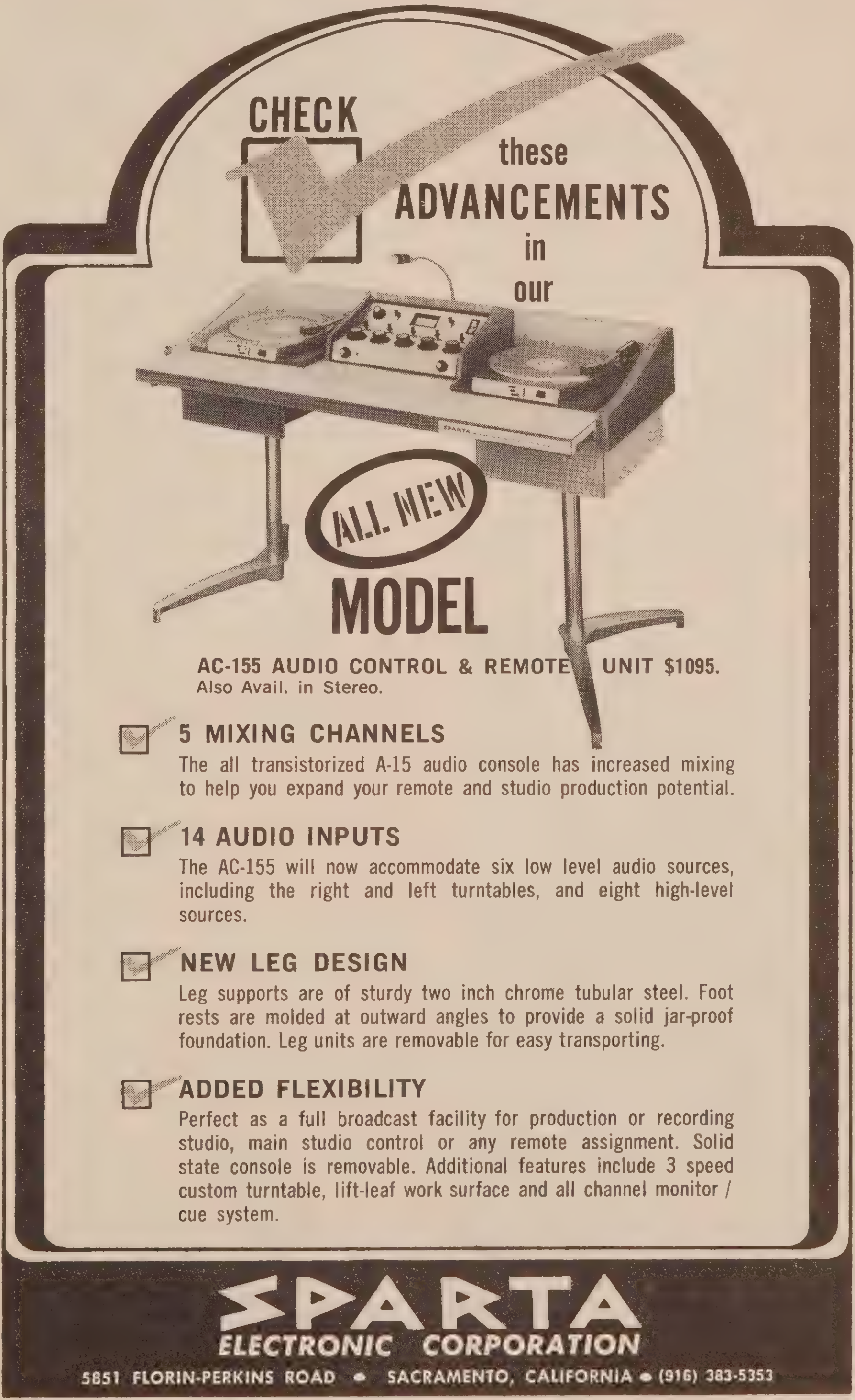
We have referred frequently to power splitting and to impedance matching and coupling the RF energy into the AC power distribution system. A decade or two ago this was an extremely difficult task. The difficulty arose from the fact that the impedance of the AC system being fed is a widely fluctuating function of time of day because of the varying utilization of lights and appliances. The only available techniques for the splitting and impedance matching of the RF energy utilized resonant circuits. With the varying load impedance, however, it was virtually impossible to maintain these circuits in resonance. While some techniques are available for largely overcoming this, they are extremely wasteful of RF power.

Ferrites Extremely Helpful

With the advent of ferrite materials, however, we are now able to make broadband non-resonant transformers and impedance matching devices which display high efficiency. They are not affected by the changing AC system load impedance. Articles in the I.B.S. Master Handbook deal with the design of these ferrite core transformers, and such units are commercially available. Their efficient design is a rather complex and elusive topic. In practice, systems using these techniques have proven very reliable and satisfactory, and have rendered the old problem of the changing AC line impedance to be negligible.

Importance of Impedance Matching

In closing, we cannot overstress the importance of proper impedance matching between the transmitter and the AC power distribution system. We actually have cases on record where commercial 50 watt transmitters have been replaced with transmitters of less than five watts output with resulting improved signal coverage. The reason, of course, is that one system was not properly matched to the power line and the other was.



AC-155 AUDIO CONTROL & REMOTE UNIT $1095.
Also Avail. in Stereo.

☑ **5 MIXING CHANNELS**
The all transistorized A-15 audio console has increased mixing to help you expand your remote and studio production potential.

☑ **14 AUDIO INPUTS**
The AC-155 will now accommodate six low level audio sources, including the right and left turntables, and eight high-level sources.

☑ **NEW LEG DESIGN**
Leg supports are of sturdy two inch chrome tubular steel. Foot rests are molded at outward angles to provide a solid jar-proof foundation. Leg units are removable for easy transporting.

☑ **ADDED FLEXIBILITY**
Perfect as a full broadcast facility for production or recording studio, main studio control or any remote assignment. Solid state console is removable. Additional features include 3 speed custom turntable, lift-leaf work surface and all channel monitor / cue system.

SPARTA
ELECTRONIC CORPORATION
5851 FLORIN-PERKINS ROAD • SACRAMENTO, CALIFORNIA • (916) 383-5353

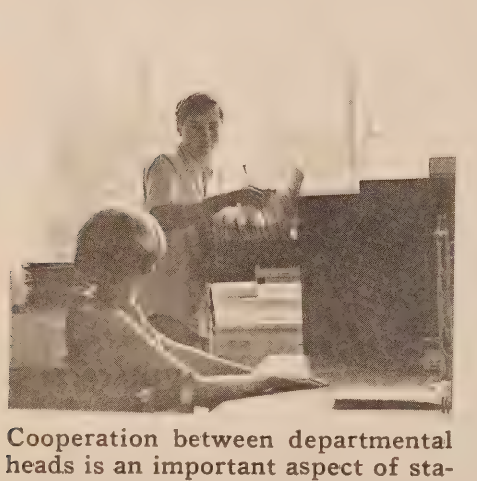
KUOI Station of the Month

at the University of Idaho

KUOI, "the Voice of the Vandal," began its service to the students of the University of Idaho on November 15, 1945, when it was granted an "experimental" permit by the Federal Communications Commission. As a pioneer campus-limited station on the West Coast, KUOI was hindered by not having any nearby stations for technical assistance and advice; and, therefore, has had a rugged and challenging development.

During its history the station has employed at least three major distribution systems. The first system was based on the local power lines. Although this system was very successful in getting good signal to the campus living groups, it was discarded in the early 1950's when it was found to be radiating excessively. The second system employed by the use of separate battery operated transistor amplifiers in each living group fed by a network of audio lines. This system was not effective because of the necessity of constant replacement of batteries. Currently, three transmitters located on separate parts of the campus feed all 50 of the campus living groups, with a potential audience of 4,000. Plans are now in progress to use a centralized transmitter to feed the entire campus.

Station Manager (and IBS Northwest Director) Lawrence Seale reading latest correspondence with an announcer in the main control in the background.



Cooperation between departmental heads is an important aspect of station management. Here Public Relations Director Emma Sawyer and Program Director Larry Townsend consider a station promotion idea in COLLEGE RADIO magazine.

PR Lirector Emma Sawyer distributing summer addresses in announcer's boxes.

KUOI gained early acceptance as "the Voice of the Vandal" and was soon located in a 5-room suite on the top floor of the University's modern Student Union Building. Several factors contributed to its acceptance by the students. For example, in the early '50's, KUOI joined with a men's honorary in sponsoring an annual talent show. The station made available public address equipment to campus organizations needing it for various purposes. In addition, KUOI got an early start in bringing public affairs programming to the students with broadcasts of campus party conventions and public events speakers.

One factor has stood out throughout KUOI's history. Even in its earlier years when it was connected with the Department of Communications and the College of Engineering, the major responsibility for the operation of the station was in the hands of the students. This responsibility was made complete in the early '60's when the University began operating its own radio station. Thus, the student aspect of the station, from student ownership and control to student - designed programming, has been one of its most outstanding features.

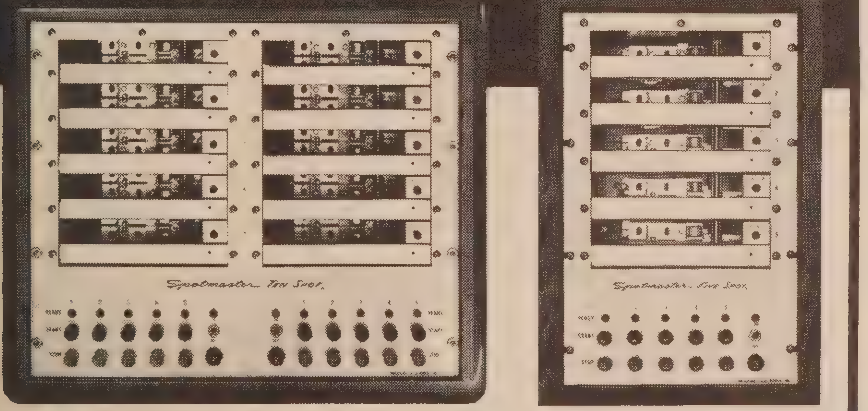
Although the station has been in existence for 22 years, some of the most rapid development has occurred within the last year or so. During the past year, it has been the effort of the present station administration to make KUOI truly "the station designed with the student in mind." A major obstacle was overcome with a decision in the spring of 1966 to allow the station to broadcast advertising. This, in turn, is beginning to have an effect on the historically poverty-stricken budgets KUOI has received in the past and has led to extremely fast development in all areas. One of the first projects in an effort to better reach the students was the proposal to add an FM transmitter to KUOI's facilities in order to reach the off-campus students, who comprise about one-third of the student body. This was approved in December, 1966, by the Associated Students of the University of Idaho, and an application for a construction permit was filed in July.

Program Director Larry Townsend reading one of his own spot announcements.

In another effort to reach the student, block music format was discarded in favor of a programming concept called "Student Sound." The Student Sound format is designed to appeal to the entire campus community. This concept programs folk music, jazz, comedy, and former hits into a basic format of new releases. The format varies during the day to coincide with the activities of the average Idaho student. For example, at mealtimes and in the late afternoon, the tempo is picked up from the morning and early afternoon Student Sound, which is designed for intermittent study. Then, in the evenings from 7:00 p.m. until sign-off, the non-distracting sounds of "Study Date" provide background music for week-night studying. During the weekends, especially Friday and Saturday nights, Student Sound develops into an up-tempo "rock" format. Every hour of KUOI's 109 hours of weekly programming is designed to reach the widest possible student audience.

Spotmaster

Multiple Cartridge Playback Units



Ten • Spot Model 610B

Five • Spot Model 605B

. . . bringing a new dimension to pushbutton broadcasting

Spotmaster Ten • Spot (holding 10 cartridges) and Five • Spot (holding five) will reproduce any NAB Type A or B cartridge instantly at the push of a button . . . at random or in sequence. They may be operated manually or incorporated into programmed automation systems, using one, two or three NAB standard electronic cueing tones.

The Ten • Spot is designed for 19″ rack mounting while the Five • Spot is available either in an attractive walnut-finished case or with a 19″ front panel containing a cartridge storage cubicle. Both are backed by Spotmaster's iron-clad full-year guarantee.

For further information about these and other Spotmaster cartridge tape units, call or write today. *Remember, Broadcast Electronics is the No. 1 designer/producer of broadcast quality cartridge tape equipment . . . worldwide!*

BROADCAST ELECTRONICS, INC.

8810 Brookville Road, Silver Spring, Maryland 20910; Area Code 301, 588-4983

Other special programming features designed to be integrated at regular intervals into the student sound format in order to help make the Idaho student more aware of his campus include the following:

On Campus Today — 1-3 minute report of the day's upcoming meetings and events.

Question-of-the-Week—1-3 minute candid interviews with the average student for his opinions on important issues aired hourly.

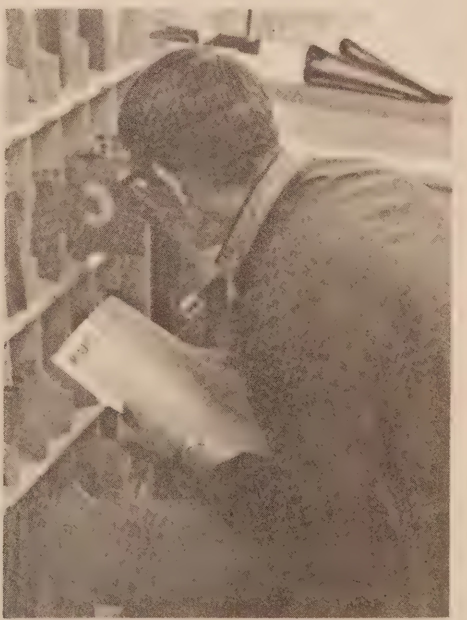
Idaho on the Move—A 5-minute report in the form of in-depth analysis of a particular Activities Council concern or an interview with a participant.

From the Hill—3-5 minute interviews with the faculty and administration about their problems and projects in the three areas of teaching, research, and service in the academic community.

3-5 minute interviews with student leaders on campus.

Radio Editorial—3-5 minute program featuring the personal views of the station management on issues vital to the University.

College U.S.A.—2-4 minute features on what campuses across the nation are doing.



Announcer Ken Butler collecting records for his Student Sound Survey show.

Unique—2-4 minute features on unusual students at the University of Idaho, notably international students.

over

Rendition—A half hour program featuring talented members of the student body in live or taped performances aired once a week.

Voice of the Bands—An hour of live dance band music broadcast weekly from the ballroom of the Student Union Building.

Music from Idaho—30 minutes of music featuring weekly presentations by the Music Department of the University of Idaho.

Campus Hot Line—A special four and one-half hour program allowing listeners to phone in and air their opinions via delayed broadcast on issues of major concern to the student body.

Executive Board Report—A 15-30 minute in-depth report of the proceedings of the weekly meeting of the Executive Board of the Associated Students of the University of Idaho.

A reorganization of news, including greater emphasis on campus news, has brought more and more students to the Voice of the Vandal in order to stay informed about what's going on on campus. The station continues to broadcast the varsity and intramural sports; public events speakers; and weekly reports on student government, including live broadcasts of some of the more important meetings, as well as coverage of campus political organizations.

Campus news is an important part of KUOI's Student Sound format. (Diagram in background is an illustration of station organization, reflection in upper right hand corner shows part of announcer's board schedule.)

With the advent of advertising, the need for improved production facilities became apparent. The second major project of the staff during the past year was to obtain new equipment. The budget of the station at the time included only $420 in capital outlay, hardly enough for even a modest improvement in the station's facilities. After a subtle campaign, to persuade student government of KUOI's need and red tape problems that could be appreciated only by people who work for a state institution, a $4,400 appropriation was obtained giving KUOI the largest amount of money it has ever had to work with in its history. Newly arrived is a Gates President console, QRK turnables and arms, a limier, and stereo cartridge equipment which will be used in KUOI's control room. The present studio equipment will be used for production purposes. This was coupled with an effort throughout the year to remodel KUOI's studios. It was finally confirmed early in the summer that the station's studios would be remodeled in accordance with the staff's wishes to include a main control room, a news announce booth, a production room that will double as a secondary control room, an engineering room, a general work area, a reception room, and the station manager's office with acoustical treatment and carpeting throughout.

The station has also tried to maintain its participation in areas not directly related to radio. In addition to providing free promotion of campus events and a lost and found service probably common to most student stations, KUOI operates as a central bureau for matching rides and riders during the times of year when students head home. The station has maintained a taping service for students who wish to have permanent recordings of special speakers on campus. KUOI's participation in the life of the campus is evidenced by the fact that its present station manager was a candidate for President of the ASUI and both vice-presidential candidates were from the KUOI managerial staff.

Above all, the staff of KUOI keep in mind the major purpose of the station—to serve the student of the University of Idaho. This is done first by providing Student Sound, a musical format with wide appeal, and then integrating with that features to keep the student up to date with the campus as well as the world. It also provides special services for the student, such as taping and the rider bureau, and provides interested students, very few of them Radio-TV majors, with a broad sampling of the field of radio.

Station Manager Lawrence Seale shown cuing up vintage "Maggie" tape recorder.

How To Help Your Regional Director Help You

Being a regional director can be one of the loneliest jobs in the world. Some have been known to go out drinking with the local station manager and program director upon the receipt of one reply from a mass mailing. The life of a regional director is filled with hazards.

He has the facilities to help most stations with their problems, but rarely hears from stations about their problems.

Lack of enthusiasm often will often kill a program which is ready to go such as a program exchange or regional sales organization. He may never be able to organize a regional file because he never receives his questionnaire back from the stations.

He may be nickled and dimed to death, that is he could spend some money to help the regional activities organize, but sees little enthusiasm to warrent his action.

Criticism can come from all sides to him if the stations believe he is not doing enough or is doing a poor job. His own station staff may view his attempt to initiate regional activity as a waste of time because so little comes of it.

He is constantly in danger of losing enthusiasm because of other peoples lack of enthusiasm.

He may also think too big and have a three hundred dollar regional convention on a one hundred dollar budget.

He may find that his region has geographical problems, like having a station in Puerto Rico or Alaska.

The most active station in his region may turn out to be a high school.

He may be just getting down to business with a station manager, when this station manager says "could you wait a minute while I introduce this record?" (no slur is intended on our stations, we hear that many commercial stations have their station managers not only on the air, but also mowing the lawn on Saturday mornings. Comment from the New York area after the latest AFTRA strike observed programming would improve if the management took over for the dj's.)

Many stations feel that IBS is too far removed from them to establish any contact with them, but IBS is only a regional director away. He is your local representative, why not write to him. If he sends out a questionnaire(why not send it back right away, instead of filing it where it will be discovered by next years station manager.

Funds for regional directors are available from IBS, all that is necessary from stations in the region is a little bit of enthusiasm. If your region has a regional director, why not write to him and say hello and find out what regional activities you can help out in. If you have no regional director, why not write to IBS and find out what you can do. Once a little enthusiasm is generated, it can be a hard thing to stop.

Your Regional Director

Middle Atlantic Region
Al Norcott, WWU, Villanova University, Villanova, Pa.
John Lorentz, WALI, Adelphi University, Garden City, New York 11530.

Great Lakes Region
Fred Turverney, WSAJ, Grove City College, Grove City, Pa.

Mountain Region
Dennis R. Grenemyer, KAS, Adams State College, Alamosa, Colorado.

Northwest Region
Lawrence C. Seale, KUOI, University of Idaho, Moscow, Idaho.

Midwest Region
Roy Ferrantino, WPCS, William Penn College, Oskaloosa, Iowa.

New England Region
Robert S. Tartleton, WESU, Wesleyan University, Middletown, Connecticut.

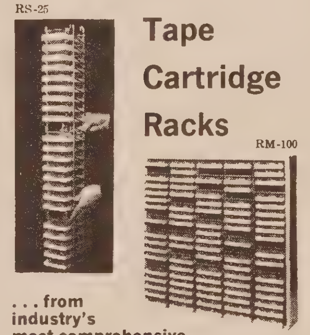
Pacific Region
Michael Bloom, KCSB, University of California, Santa Barbara, California.

Regional Sales . . .

best example of this interest has been the formation of College Radio Advertising and Marketing, Inc. The trend will increase. Regional Sales offices can hurdle many of the obstacles between the college station and prosperity.

In conclusion, I can only emphasize that the success of this project depends upon you, the sales manager of a college station in Virginia, and you, the manager of a station in Kansas. To paraphrase a rather unpopular sales slogan, REGIONAL SALES NEEDS YOU! So pick up your telephone or take out your typewriters. The time to act is now. If you do not take the initiative, the job will not get done.

(Address all inquiries to Bob Freedman, IBS Sales, 18 Monsey Blvd., Monsey, New York 10952.)



SPOTMASTER

Tape Cartridge Racks

. . . from industry's most comprehensive line of cartridge tape equipment.

Enjoy finger-tip convenience with RM-100 wall-mount wood racks. Store 100 cartridges in minimum space (modular construction permits table-top mounting as well); $40.00 per rack. SPOTMASTER Lazy Susan revolving cartridge wire rack holds 200 cartridges. Price $145.50. Extra rack sections available at $12.90.

Write or wire for complete details.

Spotmaster

BROADCAST ELECTRONICS, INC.
8800 Brookville Road
Silver Spring, Maryland

the whole deal. I have given notice to the Governor, Gov. Evans, that absolutely nothing about the State, the State's functions, or anything about the University would be aired over this radio station until The State - Tax - Supported Radio Station quits selling advertising time here in Pullman.

I have heard allegations to the effect that the faculty behind this operation is going to set in for a bitter battle. They have the money, Washington Citizens' Tax Dollars, to draw out something like this for years. It won't take me over six months to go bankrupt.

Can you help me or provide any influence to halt this unlicensed operation . . ."

(COLLEGE RADIO has reprinted this letter in such detail so that readers can get a flavor of the character of Dr. Hoover's charges.)

A letter from Alan Miller, Director of Information Services for the University answered the charges made by Dr. Hoover. Mr. Miller stated that Dr. Hoover's allegation that the operation of the staiton constituted double taxation missed the point; college radio stations and newspapers have operated on a commercial basis for many years, and the rates of the station were purposely set low so that they would not interfere with the normal business operations of local merchants.

He pointed out that the rates from Dr. Hoover's station were substantially above what the other two local stations charged for their time, and that the principal competitor in Pullman was the local newspaper, which Dr. Hoover did not mention.

As for the charge of economic interference, he stated that the audiences of the two radio stations were different (the townspeople versus the students) and the local purchasing power is found in the hands of non-students.

Dr. Hoover then took his problem to the FCC. In a letter to Secretary Ben F. Waple, he objected to the existence of KUGR on two grounds: first, that KUGR was exceeding its legal radiation limit and second, that KUGR salesmen have been selling ad spots in Pullman "at a rate approximately onetenth that of mine." The Commission has seen three of the four previously bankrupt owners of this standard station. I believe that these business failures can in part be attributed to the State supported station KUGR.

His letter closed with these statements: "Does the FCC have jurisdiction over such closed circuit systems? What are my rights?"

FCC Secretary Waple solicited the comments of KUGR on these matters. The answer from Wallace Beasley, Acting President of the University, met each of Dr. Hoover's contentions. With regard to overradiation, the facilities of KUGR (eleven separate transmitters, one in each dorm) would seem to deny the charge that the level of radiation can be changed at will, and Dr. Hoover's affadavits themselves state that he heard KUGR outside its radiation limit on only two nights (when there was unusual atmospheric activity) and that a station in Los Angeles, California broadcasting on almost the same frequency could not be heard in Pullman that night. (What he neglected to mention is that Pullman is far outside the Los Angeles station's secondary service contour.) He summed up by saying, "The suggestion that the inability to hear KFI in Pullman and Moscow on a single night establishes that station KUGR is radiating excessively reflects either a total ignorance of the engineering considerations which are pertinent or a total disregard for truth and the processes of the Federal Communications Commission."

Acting President Beasley's answer to the second charge was equally direct. He stated:

"Dr. Hoover's second charge is equally irresponsible. He alleges that student salesmen, in selling time over station KUGR to local merchants, 'subtly' describe the far reaching capacity of Station KUGR. Dr. Hoover has not pointed even to a single instance of this happening. It may reasonably be inferred that his description of the students' activities as subtle reflects his total inability to find a single instance in which the capabilities of Station GUGR have been exagerated by any of its salesmen.

It is of course, difficiult to deny categorically that any student salesman has at any time in the past exagerated the capabilities of Station KUGR.

Clearly, neither the administrators nor the faculty have total control over the activities of these students at all times when they are soliciting advertising for the station. However, the policies of the station as transmitted by the faculty to the students are clear, and the students are well aware that violation of these policies would lead to disciplinary action.

Attached hereto are the affadavits . . . of Hugh Rundell, Faculty Advisor, and Robert Brunkow, Student Sales Manager. These affadavits establish that sales efforts of the Station KUGR staff are in fact based on a realistic description of the technical capabilities of the facility.

The affidavit of Hugh Rundell notes the total absense of any significant motivation for misrepresentation in the students' sales efforts. It is also most significant that, in the sixteen years of operation of Station KUGR, no local merchant has suggested that there was inaccuracy in the sales presentation."

Dr. Hoover's letter in reply made several points, but the most important was the following: "the economic question of a tax-supported undercutting operation is still left unanswered; the tax-supported school is commercially operating an unlicensed device in the broadcast band in the same city to which I am licensed and it threatening my income by doing so."

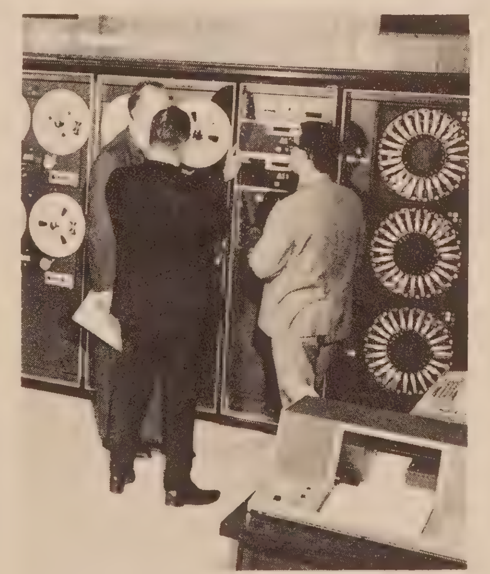
FCC Secretary Waple's letter answered the two contentions made by Dr. Hoover. With regard to the problem of overradiation, Waple stated that the system "was well engineered to achieve technical compliance with the commission rules." No recent inspections had shown overradiation. Thus there "is no support for finding that the power output of the individual transmitters may be readily adjusted or that they have been deliberately adjusted to increase the radiation of the system."

With regard to the excess radiation on the night of May 5, after examining the extra preparations and wiring which had been strung up all over the campus, Waple said that "whatever the reason, excess radiation or interference on one night and not repeated, is not grounds for the Commission in this case. A single instance of interference to reception of a standard broadcast station beyond its normally protected contour would not be considered 'harmful' interference within the meaning of Section 15.4 (b) of the Rules, and even if it were, the requirement of Section 15.7 (a) is that the 'operated of the operator of the apparatus shall promptly take steps to eliminate the harmful interference."

Thus the Commission took no further action on this part of the complaint.

The attitude of the Commission regarding the commercial operation of college radio stations emerged in the next paragraph, here reprinted in full. Briefly the FCC does not consider the rates of college radio stations any more regulatable than the commercial stations. Thus,

"Your letters have indicated that your primary intention in writing was to establish, and to seek the Commission's assistance in alleviating, the economic threat to the successful operation of station KPUL posed by the advertising rates charged by KUGR. The Commission is in no position to regulate the rates charged by KUGR any more than the rates charged by your station. Just as your license and applicable rules set forth the conditions for the operation of station KPUL, Part 15 sets out the conditions under which devices generating radio frequency energy may be operated without a license. The Part is intended to make provision for the wider use of radio and at the same time to prevent harmful interference to licensed users of the radio spectrum. Commercial operation of a carrier current system is not prohibited. In fact, most of the more than 400 campus radio systems are operated on a commercial basis to provide the students with valuable training in the business operations of a radio station."



There were huge crowds, too, for the Television and Film Exhibit '67 which occupied the entire fifth floor of the Hilton. Much of the broadcast equipment was operated under studio conditions. Exhibit officials said the electric power used to operate the wide range of studio equipment would equal in one week the normal requirements for the entire hotel in one year.

Products featured ranged from gigantic radio and television transmitters, emergency power plants, studio audio and video equipment, tape recording devices, microphones, lighting, automated broadcast station equipment, and miniaturized portable gear.

One hundred and sixteen equipment exhibitors from the United States, Japan, England, Holland, France, and Canada. About one thousand electronic experts and sales engineering personnel were on hand to represent firms producing the equipment and to demonstrate the products to exhibit visitors.

NATIONAL NEWS

The FCC and 10 Watt Educational FM Stations

The Commission has not taken any further formal action in the rule proceeding wherein the Commission noticed alternative proposals to severely restrict the licensing of 10 watt educational FM stations last fall. The Commission staff is considering a large number of comments on the proposals filed by IBS, various of its member stations, and by channel six stations. The last group fears adjacent channel interference from educational FM stations in or near their service areas.

It is understood that the staff has tentatively decided that a table of educaional FM assignments should be constructed. The table is expected to afford protection to channel 6 stations from additional interference from educational FM stations according to a formula devised by the staff of the Commission's chief engineer. This formula will restrict the licensing of additional educational FM stations in certain areas. It is understood that the staff has reached no decision on what approach to take with repect to provision for ten-watt stations in the table.

The establishment of a table of assignments for educational FM stations makes it imperative that groups which plan to apply for new educational FM stations or existing stations that plan to increase facilities in the future make their desires known to the Commission staff before a possible inconsistant pattern of assignments is "frozen" into a table. Groups or stations in this situation should file a letter (fifteen copies) with the Commission in Washington for inclusion in the Docket 14185. The letter should state their plans and desires with respect to assignments in the future table.

Meanwhile, the Commission has continued to authorize educational FM stations at the 10 watt and greater levels.

FCC Actions

APPLICATIONS:

West Hartford, Conn.—University of Hartford. Seeks 91.3 mc, ch. 217, 1.76 kw. Ant. height above average terrain 28.5 ft. P.O. address: 200 Bloomfield Avenue, West Hartford 06117

Cedar Rapids, Iowa — Coe College, Dr. John A. Wilkinson. Seeks 90.5 mc, ch. 213, 10 w. Ant height above average terrain 129.78 ft. P.O. address: 1220 First Avenue, Cedar Rapids 52402.

Bozeman, Mont.—Montana State University. Seeks 90.1 mc, ch. 211, 10 w. Ant. height above average terrain 121 ft. P.O. address Student Union building, Bozeman 59715.

Wooster, Ohio — College of Wooster. Seeks 91.9 mc, ch. 220, 0.388 kw. Ant. height above average terrain 43.48 ft. P.O. address Dr. Winfred B. Logan, Department of Speech, Wooster 44691.

Gold Beach, Ore. — James L. Hutchens. Seeks 92.7 mc, ch. 224, 0.902 kw. Ant. height above average terrain minus 735 ft. P.O. address: 351½ Madison Street, Corvallis, Ore. 97330.

Midlebury, Vt.—Middlebury College. Seeks 91.7 mc, ch. 219, 0.010 kw. Ant. hight above average terrain 210 ft. P.O. address: Old Chapel, Middlebury $5753.

FINAL ACTIONS:

LaGrange, Ill.—Lyons township High School and Junior College. Broadcast bureau granted 88.3 mc, ch. 202, 10 w. Ant. height above ground 50 ft. P.O. address: 100 South Brainard, LaGrange 60525.

Columbus, Mo.—The Curators of the University of Missouri. Broadcast Bureau granted 91.3 mc, ch. 217, 100 kw. Ant. height above average terrain 610 ft. P.O. address: Room 116, Jesse Hall, Columbia 65201.

North Manchester, Ind. — Manchester College. Broadcast Bureau granted 89.5 mc, ch. 208, 10 w. Ant. height above average terrain 150 ft.

(continued on page 25)

Marathons . . .

A new marathon record was set and another attempt fell short by one half hour.

KFCA Sophomore Misses Record

Phoenix College Sophomore Brad Johnson spent 126 hours in the KFCA-FM control room. Brad kept the station's program and engineering logs, made every station break on the hour and half hour, and cued ninety-nine percent of his own records. He began at 8 a.m. on September 4 and continued throughout registration week. When he finally closed his mike and switched the transmitter off almost 4300 students had heard his show. At one time during the marathon he left the studios to shower and change while an LP played. At One time he began dozing off and did not know where he was when he woke up. At the end of the marathon he commented, "It's a gas! I just wish I could do it on a paid basis."

On Sunday, April 2, 1967 at 4 p.m. Steve Flanigan, Chief Announcer for KUOR-FM, University of Redlands went on the air in his attempt to break the marathon record. He continued to broadcast for 126 hours and thirty minutes until 10:30 p.m. Friday, April 7, 1967.

His purpose in setting a new record was two-fold. He had set the goal of raising $1,000 for the Chaplains Fund which was split between the Christian Children's Fund and the American Leprosy Mission. He managed to raise more than $600 during his record breaking five days on the air.

CRSRDS

Those Stations which have not returned their College Radio Standard Rates and Data Questionnaire to the sales department, should do so immediately. Noncommercial stations should also return these questionnaires so that our records may be complete.

The results from survey questionnaires have been of use to groups interested in the college radio market and has helped them in plans to procure national advertising for college stations.

FCC Actions, Cont'd.

P.O. address: College Ave., North Manchester 46962.

New Wilmington, Pa. — Westminster College Board of Trustees. Broadcast Bureau granted CP for a new noncommercial educational FM to operate on ch. 205 (88.9 MC.) ERP 39 w. ant. height minus 28 ft.

OTHER ACTIONS:

WSCC (FM) Somerset, Ky. — Broadcast Bureau granted license covering new noncommercial educational station.

KASU (FM) Jonesboro, Ark. — Broadcast Bureau granted mod. license covering change in licensee name to Arkansas State University.

KALA (FM) Davenport, Iowa—Broadcast Bureau granted mod. of CP to change type ant. height to 490 ft.

KBFL (FM) Buffalo, Mo. — Broadcast Bureau granted CP to install new type trans., change frequency from 91.3 mc, ch. 217, to 90.3 mc, ch. 212, ERP 1.15 kw, ant. height 170 ft.

WSLU (FM) Canton, N.Y. — Broadcast Bureau granted mod. of CP to change ant.-trans. and studio location to Waterman Hill, 4.75 miles southeast of Canton, install new dual polarized ant., change frequency from ch. 207 (89.3 mc) to ch. 24 (96.7 mc) (change from reserve to non reserve channel), ERP to 2.6 kw, and increase antenna height to 320 ft.

WQSU (FM) Selinsgrove, Pa.—Broadcast Bureau granted license covering new FM noncommercial educational station.

WBMR (FM) Helford, Pa. — Broadcast Bureau granted license noncommercial educational station, specify type trans., type ant.

WFHC (FM) Henderson, Tenn. —Broadcast Bureau granted license covering CP for new noncommercial educational FM.

KCLC (FM) St. Charles, Mo. — Broadcast Bureau granted mod. of CP to change frequency from 90.1 mc, ch. 211 to 89.9 mc, ch. 210.

WGSU (FM) Genesco, N.Y. — Broadcast Bureau granted mod. of CP to change ERP to 1.8 kw, increase ant. height to 11 ft.

WBIV (FM) Wethersfield Twp. N.Y. — Broadcast Bureau granted CP to replace expired permit for installation of new type trans., new type ant., and increase in ERP.

WUWM (FM) Milwaukee — Broadcast Bureau granted license covering change in ant.-trans. location, increase in ERP, decrease ant. height.

WFUV (FM) New York—Broadcast Bureau granted CP to install new type trans., type ant., increase ERP to 50 kw, ant. height 220 ft.; conditions.

STATEMENT OF OWNERSHIP

(Act of October 23, 1964; Section 4369, title 39, US Code.

1. Date of filing: September 29, 1967.

2. Title of Publication: COLLEGE RADIO

3. Frequency of issue: 6 times per year, 10th of October, November, December, February, March. and April.

4. Location of known office of Publication: Intercollegiate Broadcasting System, Bethlehem, Penna. (Northampton) 18015.

5. Location of the Headquarters or General Business Offices of the Publishers: Intercollegiate Broadcasting System, Bethlehem, Penna. (Northampton) 18015.

6. Names and addresses of Publisher, Editor, and Managing Editor. Publisher; Robert E. Jakielski, Mc-Clintic Marshall House, University Avenue, Bethlehem; Editor, Robert E. Jakielski, Mc-Clintic Marshall House, University Avenue, Bethlehem; Managing Editor, Thomas B. McCloud, Jr., Mc-Clintic Marshall House, University Avenue, Bethlehem.

7. Owner (If owned by a corporation its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one percent or more of the total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address as well as that of each individual must be given. Owned by the Intercollegiate Broadcasting System, Inc. (non-profit); Corporate Office: 2005 Industrial Bank Building, Providence, Rhode Island; General Business Office; Bethlehem, Pa. A non-profit corporation, no stockholders.

8. Known Bondholders, Mortgagees, and other security holders owning or holding one percent or more of total amount of bonds, mortgages, or other securities: None.

9. None.

10. This item must be completed for all publications except those which do not carry advertising other than the publisher's own and which are named in sections 132.-231, 132.232, and 132.233, Postal Manual (sections 4355a, 4355b, and 4356 of Title 39, United States Code.) First figure the average number of copies each issue during preceeding twelve months; second figure copies, single issue nearest to filing date. (April, 1967)

A. Total number copies printed (Net Press Run): 2350 2300

B. Paid Circulation:

B.1. Sales through dealers and carriers, street vendors and counter sales:
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B.2. Mail Subscriptions:
2044 2022

C. Total Paid Circulation:
2044 2022

D. Free Distribution (including samples by mail, carrier, or other means: 60 38

E. Total Distribution:
2104 2060

F. Office use, Left over, Unaccounted, Spoiled after printing:
246 240

G. Total: 2350 2300

I certify that the statements made by me above are correct and complete.

/s/ Robert E. Jakielski

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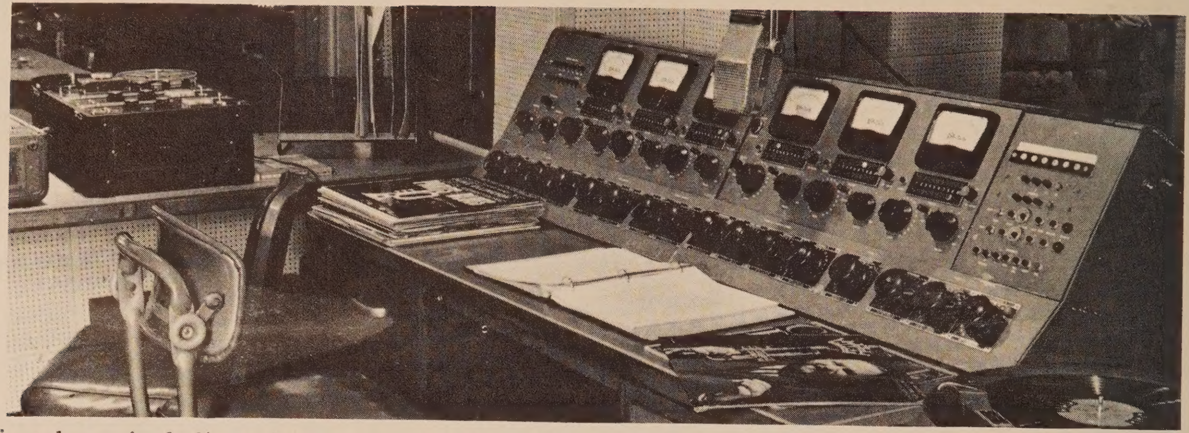
SIGN OFF . . .



This column is dedicated to those who don't like sounding boards. Because it is one. And that's something that we all need from time to time.

From CR's inception in 1964 until last year we ran a Sign Off because we felt it essential and an integral part of our "voice." So we are returning to the tried and proven. In future issues we'll be examining particular phases of broadcasting, but this time we have a potpurri of thoughts for you.

Centered on professionalism. Yes, let's take just a couple minutes to look at the word.

Professionalism means your sound. You run rock format? But is it tight? Has every announcer made each of his shows this year. And will you have logs to prove it 2 years from now?

How about your news sound? Does it sound like the average commercial product, or is it one you can be proud of? Are you running actualities? Have you developed cooperative programming arrangements with other nearby college radio stations?

Perhaps you recall R. Peter Straus' address to the East Coast National Convention last April. He urged college stations to seek controversy and be involved in campus events. Is your Campus Affairs department keeping your station the "Town Crier?"

But the other areas where professionalism applies are numberless. Let's look at some more of them.

Take station engineering. Too often we don't take a good look at station engineering. Either get talkback fixed or do news from somewhere else. Can the DJ see the clock easily? Do all your clocks agree? Is there a VU meter in the announce booth?

Or what about preventative maintenance? They're 2 nasty words you have to live with. And the more respect you give them, the better off you are. In all honesty, how would you rate station engineering. At the top put the 2 most important questions. When was the last time you went off the air for technical reasons? Is there any part of campus that doesn't get your signal clear?

In the beginning of the Semester IBS sent its member stations a copy of the station checklists found in the *IBS Master Handbook*. Do you honestly feel your station is operating efficiently? Do you stand back and evaluate your performance periodically? Do you work from checklists and calendars, or trust to memory from year to year?

Let's take a look at a few more.

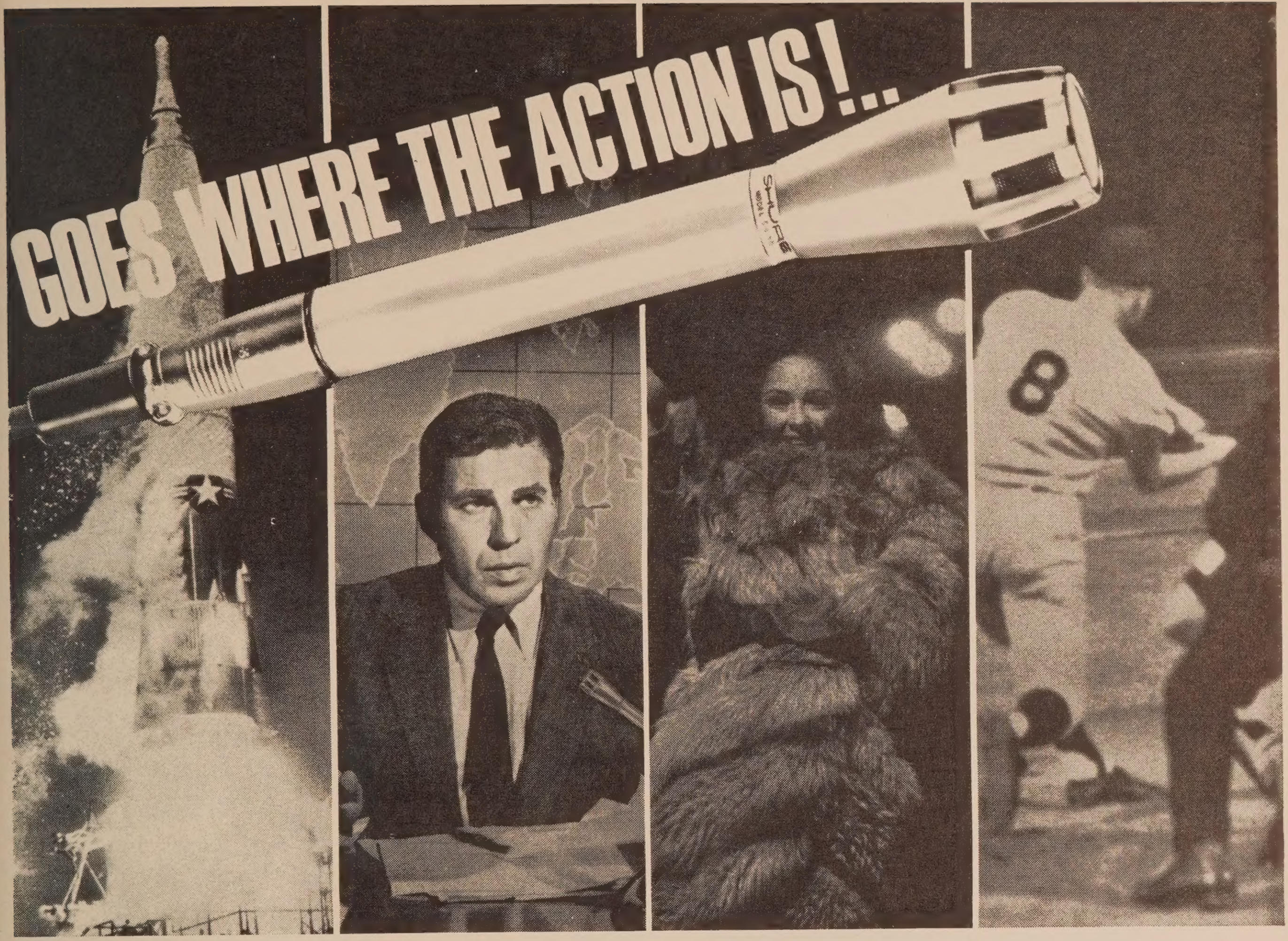
Advertising. Doing a good job? O.K., sales are up. But how's the copy. Is the continuity really sharp? Or does it have a tongue-twister in the first line? Do the writers check the book after the first week to see what the DJs have written in? That's how you can tell if it needs some more work? On the business side of advertising . . . are your affidavits always in on time? Few things annoy advertisers like late affidavits. And score yourself on advertising integrity. Did you forward your letter from Playboy advertising and that Rate Card request from Seagram's to your national Station Rep?

This issue's Sales column raises a good question. How *is* your Campus Image? Does the armor have dents? Or could it use some boosting? You run announcements for campus organizations? Does your public see a station that's being run like a business? Plenty of *good* Special Programming? How about Promo Posters? Do you sponsor something special for a charity once a year? Run contests? Give away pens? Blotters? Phones on campus have your number on the telephone cap? How about getting your Basketball coverage schedule on the inside of the matchbooks in the machines on campus?

Let's not ignore the obvious. Your own promotion. This just about takes us back to where we started. How's your sound? Are you using decent mikes, or do you need a couple new ones? Wouldn't some reverb help a lot? You are your own best promotion . . . now go turn on a radio and *listen*. You'll never promote what you don't have. For commercial operations that means that if you don't have a good sound you don't have listenership, and if you don't have it you can't sell it.

Part of your sound is production. How's yours? Are at least 40% of your ads on tape? And editorials and news specials? You have a good jingle set? Production, and the lack of it, can make or break a station.

So can any of the last hundred questions. You've read enough questions; have you found the answers?



The SM60 cannot be stereotyped—is equally at home in the studio or in the field—stand-mounted or hand-held—in uses as diverse as outdoor sporting events and elaborate variety shows. Small wonder that audio engineers have called it one of the most versatile omnidirectional dynamics they've ever encountered, for the SM60 is a unique combination of good-looks, strength, performance and economy.

The smooth, wide-range response provides cleanest, natural reproduction of both speech and music. A very effective built-in wind and "pop" filter protects against undesirable effects of close-talking.

Lustrous, non-glare metallic finish and tailored-to-the-hand dimensions provide striking on-camera appearance and superior handability. Specially reinforced machined-steel case front is designed to take abuse that would ruin other microphones—you can drop it on its nose without damage to the internal structure! Efficient windscreen and front end are *quickly* and *easily* removable for cleaning.

Best of all, it is priced competitively with conventional "workhorse" microphones. Why not check out an SM60 now? See your Shure Professional Products Distributor, or contact Mr. Robert Carr, Manager of Professional Products Division, Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. 60204—Phone 312 - 328-9000.

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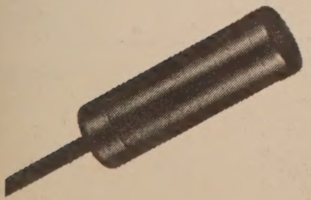
THE LAST WORD IN WEARABLE LAVALIER MICROPHONES . . . BY SHURE



Specifically designed for radio, TV, motion pictures . . . matches well in sound with stand or desk mounted units. Smoothly-contoured, machined-steel case and recessed grille for minimum clothing noise. Exclusive snap-in mounting of microphone for greater convenience, security. "Positive Lock" lavalier goes on in an instant—provides simple, noiseless position adjustment. Extra-flexible, kink-free rubber cable is easily replaceable.

MODEL SM51 DYNAMIC LAVALIER

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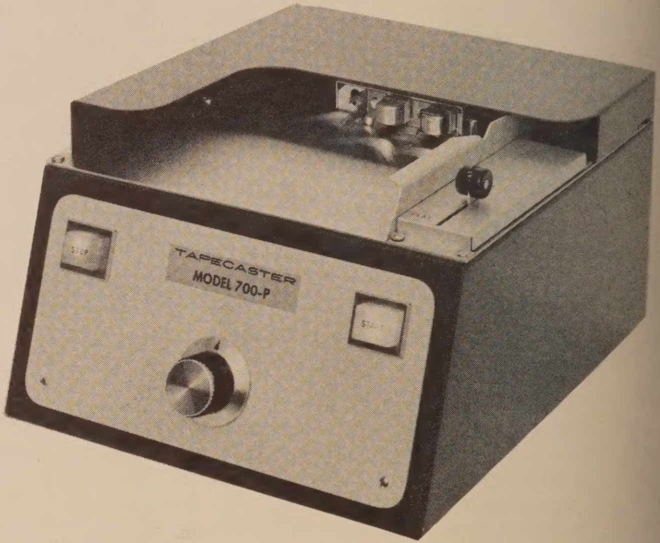

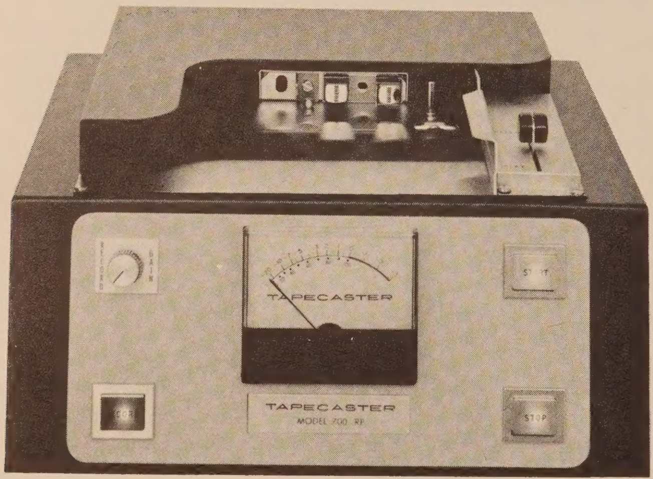

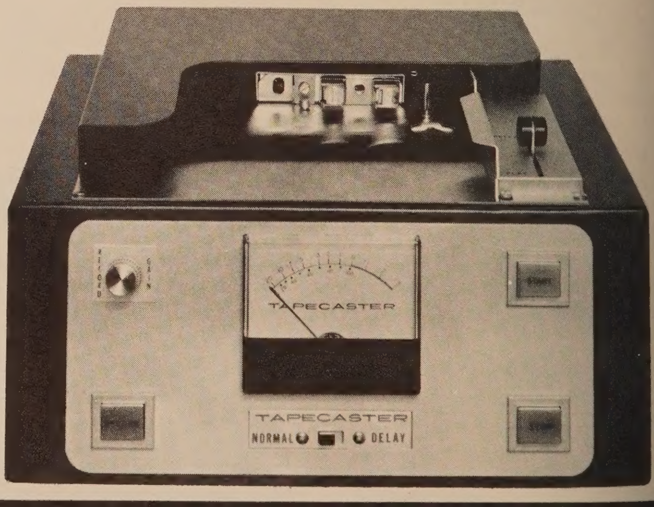

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